Acta Biol. Univ. Daugavp., Suppl. 3, 2012: 91 – 93.
ISSN 1407 – 8953

FINDINGS OF *EMYS ORBICULARIS* (LINNAES 1758) IN SALMONID LAKES IN LATVIA

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Key words: *Emys orbicularis*, salmonid lakes, Latvia

INTRODUCTION

Emys orbicularis (Linnaes 1758) is semi-aquatic Reptile of Europe, Latvia is situated on the northern edge of the species distribution (Fritz, 2003; Meeske et al., 2006). *Emys orbicularis* uses different types of water bodies and terrestrial biotopes for feeding and migrations (Ficetola et al., 2004; Meeske & Muhlenberg, 2004). Ponds, canals, small rivers, marshes, lakes are important water biotopes of European pond turtle *Emys orbicularis*. The research, preservation and optimization of water biotopes of *Emys orbicularis* is an important part of realization of the official "Plan of conservation of European pond turtle *Emys orbicularis* in Latvia" (Pupiņš & Pupiņa, 2007), approved by Latvian Ministry of Environment in 2008.

MATERIALS AND METHODS

The study of the distribution of *Emys orbicularis* in Latvia is carried out in 1985 - 2012. Taking into account the rarity of *Emys orbicularis* in Latvia, the primary method of the study was the interrogation of inhabitants about the observation of European pond turtle in Latvia. Simultaneously with the interrogation via mass-media the wide informative campaign for Latvian inhabitants about the importance of preservation of European pond turtle in Latvia and the need for reporting the researchers about all cases of Emys orbicularis observation in Latvia took place. At the same time special attention was paid to the creation of positive attitude among the inhabitants of Latvia towards European pond turtle.

The plausibility of each case was determined by the scale from 1 (the least plausibility) to 4 (the most plausibility): 1- respondent did not find a turtle, but other people told him about the finding; 2 – respondent, who is not a biologist saw a turtle; 3- a turtle was found in nature by the respondent, who is a biologist; 4- the authors of the present study saw a turtle or there is a photograph of a turtle. We checked the obtained data during field expeditions. The main aim of the expeditions was investigation of types of water biotopes used by *Emys orbicularis* in Latvia.

RESULTS

The carried out studies have shown that 41% of identified biotopes (n=59) of findings of *Emys orbicularis* (n=92) in Latvia were lakes. In three cases the *Emys orbicularis* findings biotopes were the salmonid lakes (Table 1).

Table 1.
Emys orbicularis findings in salmonid lakes in Latvia.

Case	Lake	Coordinates	Year of finding	Plausibility	Number of observed animals
1	Drīdzis	N55°58′53,62″ E27°17′29,67″	1986	1	1
2	Riču	N55°42′33,83″ E26°44′42,02″	1995	4	1 (adult female)
3	Ārdavs	N56°01′11,84″ E27°14′26,75″	2001	2	n>1 (juveniles)

In 1972 possible prints of hunting of *Emys orbicularis* were observed for some times in River Silupite, it is a short river, connected Lakes Riču and Lake Sila. The distance from the finding in salmonid lakes to other findings of *Emys orbicularis* in Latvia (Pupins & Pupina, 2008a, Pupins & Pupina, 2008b) and in Belarus (Pupins et al., 2010) is not more than 30 km (Figure 1).

On the shores of Lake Riču there are situated camping and boathouses. Lake Riču is actively used by local people and tourists for recreation and fishing with nets and rods that threaten migrating *Emys orbicularis* (we are aware of the case of catching of *Emys orbicularis* by tourists - divers in Lake Riču). The river Silica is actively used for fishing with rods too.

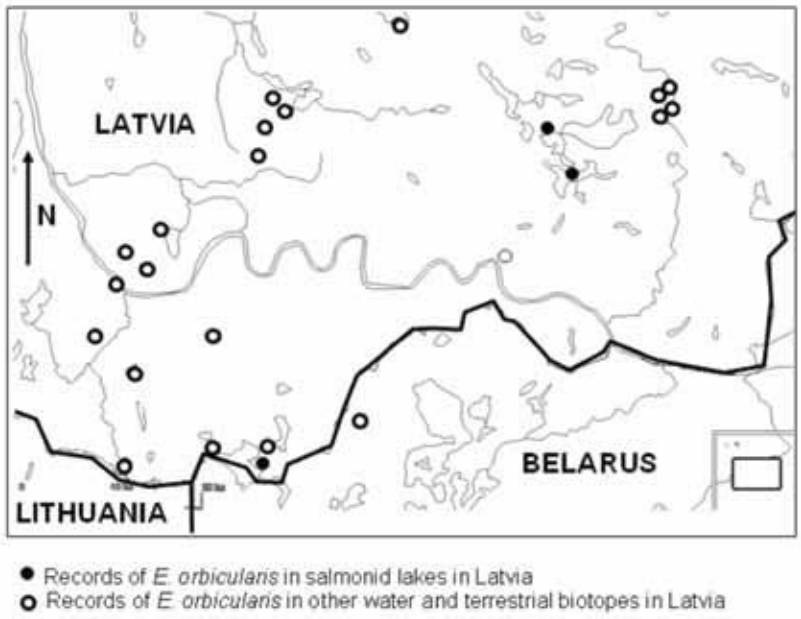

Figure 1. Placement of findings of *E. orbicularis* in salmonid lakes in Latvia and in other biotopes in South-East Latvia and in Belarus.

DISCUSSION

Big salmonid lakes are too cold and deep and, of course, aren't preferable feeding biotope for *Emys orbicularis* in Latvia. But these lakes have a wide catchment area, big sizes, and connection with other water bodies through rivers or channels. Therefore the lakes can have a role of distribution water corridors for *Emys orbicularis* in Latvia, also for trans-border contacts between *Emys orbicularis* populations in Latvia and in Belarus (Pupins et al., 2010), because Lake Riču is trans-border lake. The salmonid lakes, mostly used for fishing, aren't safe ways for migrations because the fishing can be dangerous for *Emys orbicularis* (Nemoz et al., 2004). Therefore the lake Riču is not a safe corridor for transboundary movement of *Emys orbicularis*.

ACKNOWLEDGEMENTS

This research has been executed owing to support of LIFE+ Project LIFE09NAT/LV/000239 "Conservation of rare reptiles and amphibians in Latvia", Institute of Ecology of Daugavpils University, Daugavpils City Council. We thank V.Bakharev, S.Drobenkov (Belarus); G.Kasparsons, A.Skute (Latvia) for the consultations and cooperation.

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